# STREAM BOOK TORING DATA COLONOVIEW

A national quality assurance (QA) framework is available to support community and catchment-based monitoring groups to collect freshwater data of a known quality that are 'fit for purpose'. The framework will also help to increase the visibility and use of the

# Why a framework?

Community-based monitoring (CBM) of fresh waters continues to grow in Aotearoa New Zealand, boosted both by interest in the health of our streams, rivers and lakes as well as the need for more data at a local scale to support catchment-based freshwater management.

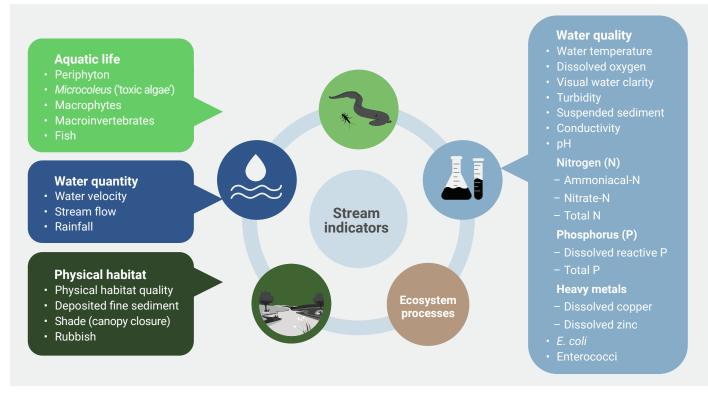
data in freshwater management.

The national QA framework aims to provide CBM groups with confidence that the stream data they collect will:

- · meet their needs.
- be recognised by regional councils and other organisations as being credible and fit for purpose, and
- support potential re-use by third parties (e.g., in freshwater modelling and reporting).

# What is the scope of the framework?

The framework focuses on monitoring of stream health and is built around an initial set of 28 indicators. These indicators describe physical, chemical and microbiological water quality (e.g., visual clarity, nutrients), aquatic life (e.g., macroinvertebrates, fish), physical stream habitat (e.g., shade) and water quantity (e.g., velocity, rainfall). Some of these indicators are also relevant to monitoring of lakes and coastal waters.



Indicators of stream health included in the national CBM QA framework.



# ENGAGEMENT AND EDUCATION

### **Examples:**

- Increase public understanding of stream health
- Raise awareness of a particular issue
- Demonstrate how to monitor stream health
- Promote environmental stewardship



# INVESTIGATIONS AND SURVEILLANCE

### **Examples:**

- Environmental screening (e.g., identify pollution 'hotspots')
- Characterise stream health
- Identify impacts of land use on stream health
- Assess effectiveness of riparian restoration
- Contribute data for model development and verification



# INFORMING REGULATORY PROCESSES

### **Examples:**

- Contribute evidence for regulatory decisions (e.g., resource consents, compliance assessments)
- Support freshwater policy development
- Trend and plan effectiveness monitoring
- Contribute data for model development and verification

Type of data collection

More qualitative

Qualitative or quantitative

More quantitative

Most detail

Monitoring & Quality Plan

Less detail More detail

Increasing time, cost and QA effort

Data use categories in the national CBM QA framework with examples of possible data collection purposes that sit in each. The categories span a continuum, where planning, time, cost and QA requirements increase from left to right.

# How was the framework developed?

The framework was developed by NIWA, on behalf of regional councils, in partnership with a range of government, not-for-profit and other organisations. It builds on existing national monitoring and CBM guidance as well as a review of overseas approaches to CBM QA. The framework recognises that monitoring purpose and data use often differ across CBM groups.

# What does the framework provide?

- An electronic Monitoring and Quality Plan template to establish a clear monitoring purpose (the "why") and what, where, how and when the monitoring will be carried out.
- A guidance document to support completion of a Monitoring & Quality Plan. This includes, for each monitoring indicator, details of the measurement methods, supporting information to record, and recommended training and quality checks.
- Electronic field form templates for use on a mobile phone, tablet or computer to efficiently capture stream health monitoring data. The forms include built-in, automated quality checks and calculations.
- A background report that explains how the framework was developed and the selection of indicators and measurement methods.



## Find out more

The CBM framework resources are available on the Resources section at <a href="www.waiconnection.nz">www.waiconnection.nz</a>
The resources are free to use. A host organisation with an ArcGIS licence is needed to use the electronic field forms.

The national CBM QA framework is supported by:













































